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Oops! John, because of the comedy of errors in the first letter, I am sending you a corrected version. Please discard the letter dated May 6, 2005. Again, perhaps Stephani could include some of this information into the presentation she is going to give at the Mora Research Center Open House on Friday, May 20th. If I have the time I will also try to attend the Open House to get a more complete picture of what you all are doing at the Center.

At your request we met on Thursday, April 14, 2005 to look at the tiger moth activity occurring at the Mora Research Center and throughout the Mora valley. I invited Stephani Sandoval, Cooperative Extension Service, New Mexico State University, to join us. Following is a brief summary of that meeting:

> At the Mora Research Center, tiger moth caterpillars, *Lophocampa ingens*, were found feeding on a variety of tree species which included ponderosa pine, white pine, bristlecone pine, Douglas fir, white fir and spruce. Early and late instar tiger moth caterpillars were found feeding on the foliage and within conspicuous tents on infested trees (Figures 1 and 2). Looking at the size of the caterpillars feeding on the foliage and within the tents, they looked like they were just about ready to enter into the pupal phase.

Figure 1. Tiger moth larvae and tents on spruce

Figure 2. Tiger moth larvae and tent on white pine

Of particular interest was the webbing you pointed out at the bases of the infested trees (Figure 3).

Figure 3. Webbing and frass at the base of white pine

Figure 4. Base of tree with cast exuviae of early instars of the tiger moth, *Lophocampa ingens*

Observations indicated these webs were made by the over wintering tiger moth caterpillars since frass (caterpillar droppings) and early instar castings or molted caterpillar skins (exuviae) were embedded in the webbing. Cast caterpillar skins were also found in abundance on the lower boles of infested trees (Figure 4). I suspect the immature caterpillars may be aggregating at the base of the trees to survive the freezing winter temperatures. Stephani noted that the webbing ran up the length of the boles of the infested trees (Figure 5). This webbing may have been laid down by the immature caterpillars as they migrated back and forth from the foliage to the base of the tree during the cold winter months (figure 6).

Figure 5. Tiger moth webbing on mid-bole of white pine

Figure 6. Mature tiger moth larvae crawling on bole of tree bole of white pine

Once they formed the tents in the canopy, they would no longer have to migrate to the base of the tree. We hope to look into this later this fall and winter.

Our drive through survey of the Mora valley and our stop at the Hutchinson Ranch indicated tiger moth activity was widespread throughout ponderosa pine forest type. Several areas appeared to have 35 or more infested trees per acre. The majority of the infested trees observed had 2 or 3 tents per tree. Based on the number of tents per tree and the overall level of tiger moth activity I observed, these populations appear to have been building up for several years. As you indicated this increase in tiger moth activity is probably due to the unusually mild, dry winters which have been occurring in the Mora valley the past few years. Although tiger moths in the Southwest are most often encountered on ponderosa pine and piñon, as we saw in Maestes Canyon, they occasionally feed on Douglas-fir, white fir, and white pine.

Since there is an active tiger moth infestation at the Mora Research Center, Stephani and I would like to follow the life cycle of this insect at the Center. We are planning to visit the Center on Tuesday, June 7 to collect some tiger moth pupae. This will also give us an opportunity the see where on the host they are pupating and if they are being parasitized by parasitic flies and wasps.

If you have any question please give call me at (505) 843-3287 or e-mail me at trogers@fs.fed.us.

Sincerely,

/s/ Terrence J. Rogers
TERRENCE J. ROGERS
Entomologist, Forest Health, New Mexico
Zone

cc: Leonard Lucero, Debra Allen-Reid, Douglas L Parker